

## CLAIM AMENDMENTS

Please cancel Claim 3, amend Claims 1, 2, 5, and 6, and add new Claims 7 and 8, as follows:

1. (Currently Amended) A photoelectric conversion device ~~wherein a~~  
comprising:  
a plurality of pixels arranged in a pixel region, each pixel including a  
photoelectric conversion device region for converting [[a]] light into a signal charge, and a  
peripheral circuit arranged outside of said pixel region and including a circuit for processing said  
signal charge, outside a pixel region in which the pixel are the pixels and peripheral circuit being  
disposed together on the same a substrate, characterized by comprising: wherein the photoelectric  
conversion region includes  
  
a first semiconductor region of a first conductivity type ~~for providing said~~  
photoelectric conversion device ;  
  
a second semiconductor region of a second conductivity type that is ~~same~~  
opposite to said first conductivity type of , and that is disposed in the first semiconductor region  
for accumulating said signal charge; and  
  
a third semiconductor region of the first conductivity type ~~for providing~~  
and comprising said peripheral circuit;  
  
wherein the impurity concentration of said first semiconductor region is  
higher than the impurity concentration of said ~~second~~ third semiconductor region.

2. (Currently Amended) A photoelectric conversion device wherein a comprising:

a plurality of pixels arranged in a pixel region, each pixel including a photoelectric conversion device region for converting [[a]] light into a signal charge, and a peripheral circuit arranged outside of said pixel region and including a circuit for processing said signal charge, outside a pixel region in which the pixel are the pixels and peripheral circuit being disposed together on the same a substrate, comprising: wherein the photoelectric conversion region includes

a first semiconductor region of a first conductivity type for providing said photoelectric region; ;

a second semiconductor region of a second conductivity type that is same opposite to the first conductivity type of , and that is disposed in the first semiconductor region for accumulating said signal charge; and

a third semiconductor region of the first conductivity type for providing and comprising said peripheral circuit;

wherein said first and third semiconductor regions have impurity concentration profiles forming peaks; and

wherein the peak impurity concentration of said first and third semiconductor region[[s]] comprise is higher than the peak impurity concentration peaks of said third semiconductor region.

3. (Cancelled)

4. (Original) The photoelectric conversion device according to Claim 2, wherein the peak impurity concentration position of said first semiconductor region is disposed deeper than that of said third semiconductor region.

5. (Currently Amended) The photoelectric conversion device according to Claim 2, wherein said first semiconductor region has a structure wherein plural semiconductor regions having impurity concentration peaks ~~[[are]]~~ disposed in a depth direction inside said substrate, and the impurity concentration of the impurity concentration peak ~~formed~~ disposed in the deepest portion is higher than the impurity concentration of the impurity concentration peak ~~formed~~ disposed at said photoelectric conversion device side.

6. (Currently Amended) The photoelectric conversion device according to Claim 2, wherein said first semiconductor region and third semiconductor region are formed by plural semiconductor regions having the impurity concentration peaks, and~~[[,]]~~ the peak impurity concentration of the region of the highest impurity concentration peak among plural regions for forming of said first semiconductor region, is higher than the peak impurity concentration of the region of the highest impurity concentration peak concentration among ~~from~~ plural regions for forming of said third semiconductor region.

7. (New) A photoelectric conversion device comprising:

a plurality of pixels arranged in a pixel region, each pixel including a photoelectric conversion region for converting light into a signal charge, and

a peripheral circuit arranged outside of a pixel region, and including a circuit for processing said signal charge, the pixels and the peripheral circuit being disposed together on a substrate, wherein the photoelectric conversion region includes

a first semiconductor region of a first conductivity type;

a second semiconductor region of a second conductivity type opposite to said first conductivity type, and being disposed in the first semiconductor region for accumulating said signal charge; and

a third semiconductor region of the first conductivity type and comprising said peripheral circuit;

wherein said first semiconductor region has a structure wherein plural semiconductor regions having impurity concentration peaks are disposed in a depth direction inside said substrate,

the impurity concentration of the impurity concentration peak disposed in the deepest portion is higher than the impurity concentration of the impurity concentration peak disposed at said photoelectric conversion device side, and

the impurity concentration of said impurity concentration peak disposed in the deepest portion of said first semiconductor region is higher than the impurity concentration of said impurity concentration peak of said third semiconductor region.

8. (New) The photoelectric conversion device according to Claim 7, wherein said impurity concentration peak disposed in the deepest portion of said first semiconductor region is deeper than an impurity concentration peak of said third semiconductor region.